REMARKS

This Amendment, filed in reply to the Office Action dated August 7, 2008, is believed to be fully responsive to each point of objection and rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 9-18 are rejected. Claim 9 is amended herewith to recite that the antigen used for sensitization is a protein having a molecular weight of 1,000 to 100,000 obtained by culturing a wood-destroying fungus selected from the group consisting of *Fomitopsis palustris, Gloeophyllum trabeum, Coniophora puteana, Serpula lacrymans, Trametes versicolor and Gloeophyllum sepiarium* in a liquid medium containing cellobiose as the main carbon source. Support for this amendment can be found throughout the specification as filed, and at, for example, page 7, lines 15-19, from page 10, line 22 to page 11, line 3, and Claim 10 as originally filed. Claim 10 is canceled accordingly, without prejudice or disclaimer. Claim 9 is also amended herewith to recite that the claimed agent is reactive with wood-destroying fungi but not reactive with fungi other than wood-destroying fungi. Support for this amendment can be found throughout the specification as filed, and at, for example, page 6, lines 9-13. Claim 11 is amended herewith to correct antecedent basis in view of the cancellation of Claim 10. Hence, no new matter is added by way of this amendment.

Withdrawn method Claim 1 has been amended to include all of the limitations of amendment product Claim 9. Claim 2 has been canceled and Claim 4 has been amended to depend from Claim 1. If Claim 9 is found to be allowable, Applicants respectfully request rejoinder of withdrawn method Claims 1, 2 and 4-8 (directed to a method of use of the agent of Claim 9) pursuant to MPEP §821.04.

Entry and consideration of this amendment are respectfully requested.

Drawings

Applicants thank the Examiner for acknowledging acceptance of the drawing submitted January 23, 2006.

Priority

Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority, and acknowledging receipt of the certified copy of the priority document from the International Bureau.

Claims 9 and 11-18 are Patentable Under 35 U.S.C. § 103(a)

On pages 2-4 of the Office Action, Claims 9-18 are rejected under 35 U.S.C. 103(a) as being obvious over Clausen *et al.* (U.S. Patent No. 5,563,040), in view of Hirano *et al.* (*Journal of Wood Science*, Vol. 46, 2000).

In making the rejection, the Examiner cites to Clausen *et al.*, who allegedly disclose an agent for diagnosing wood decay, comprising an antibody obtained by sensitizing an animal with a protein obtained by culturing a wood destroying fungus. However, the Examiner acknowledges that Clausen *et al.* do not disclose a protein having a molecular weight of between 1000-100,000, or *Fomitopsis palustris*.

In an attempt to rectify the deficiencies of Clausen *et al.*, the Examiner cites to Hirano *et al.*, who allegedly disclose a low molecular weight protein fraction from *Fomitopsis palustris*, and the production of polyclonal antibodies against the fraction.

The Examiner contends that one of ordinary skill in the art would readily have incorporated the antibody of Hirano *et al.* in the method of Clausen *et al.*, because Clausen *et al.* allegedly disclose that antibodies against other fungi may be used in the method therein.

Applicants respectfully disagree, and traverse the rejection on the following grounds.

As an initial matter, Applicants note that Claim 9 is amended herewith to recite that the antigen used for sensitization is a protein having a molecular weight of 1,000 to 100,000 obtained by culturing a wood-destroying fungus selected from the group consisting of *Fomitopsis palustris, Gloeophyllum trabeum, Coniophora puteana, Serpula lacrymans, Trametes versicolor and Gloeophyllum sepiarium* in a liquid medium containing cellobiose as the main carbon source.

For the following reasons, even assuming *arguendo* that one of ordinary skill in the art were to combine Clausen *et al.* and Hirano *et al.*, they would not arrive at the instantly claimed invention.

First, Applicants note that the species of extracellular proteins produced by fungi differ considerably depending on the composition of the fungal growth medium, and the method of culturing. Specifically, depending on the components present within the growth medium, fungi induce expression of different enzymes to decompose components of the growth medium. Such inducible enzymes are well-known to those of skill in the art, as evidenced by page 5 of the "Dictionary of Sciences" document attached herewith.[1] This document explains that adaptive enzymes (*i.e.*, inducible enzymes) are synthesized only in the presence of an inducing agent ...

[1] In accordance with M.P.E.P. 609(c), the documents cited herein in support of Applicants' remarks are being submitted as evidence directed to an issue raised in the Official Action, and no fee pursuant to 37 C.F.R. 1.97 or 1.98, or citation on a FORM PTO/SB/08 or PTO-1449 is believed to be necessary.

[f]or example, if the bacterium *Escherichia coli* is grown on a medium containing lactose, it will produce large amounts of β-galactosidase in order to utilize this substrate." (Emphasis added.)

Further, at page 161 of the "Dictionary of Microbiology," attached herewith[2], it is disclosed that "Cellulases are subject to induction (in the presence of cellulose) and to catabolite repression..." Thus, as would be appreciated by those of ordinary skill in the art, the proteins induced, and secreted, by fungi depend upon the composition of the growth medium on which the fungi are grown (such as the presence of cellulose).

In this regard, Applicants note that the antigen of Hirano *et al.* is extracted from the culture medium of *Fomitopsis palustris* grown on Basal agar medium supplemented with wood pieces (*i.e.*, as a source of cellulose). However, the antigen of the instant invention is extracted from the filtrated culture medium of a fungi selected from the group consisting of *Fomitopsis palustris, Gloeophyllum trabeum, Coniophora puteana, Serpula lacrymans, Trametes versicolor and Gloeophyllum sepiarium* in a liquid medium containing cellobiose (a β-1,4-linked disaccharide) as the main carbon source. Thus, due to this fundamental difference in the growth conditions used to culture the fungi, the antigen extracted by Hirano *et al.*, and the instant antigen, are substantially different, regardless of whether they fall within the same molecular weight range. Accordingly, because the antigen used for sensitization is different, the instant antibody is thus different to the polyclonal antibody obtained by Hirano *et al.*

Applicants note that one such difference between the instant antibody and the polyclonal antibody of Hirano *et al.* lies in the specificity of the antibody. The detection of wood decay by

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multiple wood rotting fungi can be achieved using antibodies obtained by sensitization with antigen obtained by incubating just one of the fungi of Claim 9 in a medium containing cellobiose. To the contrary, Applicants note that antibody obtained by sensitization with antigens obtained by incubating *Formitopsis palustris* in a medium without cellobiose only allows the detection of wood decay by *Formitopsis palustris*. Thus, the antibody of Hirano *et al.*, and the instant antibody are not the same. Accordingly, a *prima facie* case of obviousness has not been established because there is no identity of invention. That is, even if one of ordinary skill in the art were to combine Clausen *et al*. and Hirano *et al*., they would not arrive at the instantly claimed agent.

For the foregoing reasons, Applicants respectfully submit that Claims 9 and 11-18 are not rendered obvious by the cited references.

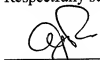
Withdrawal of the rejection, rejoinder of Claims 1, 2 and 4-8 and allowance of Claims 1, 2, 4-9 and 11-18 is earnestly solicited.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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